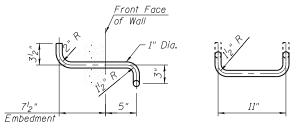


SECTION A-A SECTION B-B



SIDE VIEW

FRONT VIEW

4'-0"

L a131

L a130

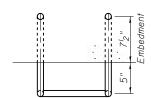
-Trim bars to fit

\*\*Dimensions to be verified with precast concrete box culvert manufacturer.

opening (typ.)

El. 672.82

## TYPE Z LADDER RUNG ELEVATIONS



TYPE Z LADDER RUNG PLAN

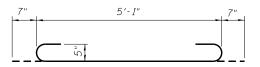
- 1. The ladder rungs shall be aluminum, conforming to ASTM B361-Alloy 6061-T6 or shall be ductile iron. Aluminum ladder rungs shall receive a heavy coat of bituminous paint or cold applied asphaltic mastic for the portion embedded in concrete. The coating must extend beyond the embedment at least two inches.
- 2. The contractor may submit an alternative ladder rung detail for Engineer's approval.

Note: All costs for compacted subbase or CLSM, ladder rungs and all other appurtenances required to complete this work shall be included in the item "Concrete Structures."

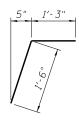
Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

## BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a130	7	#5	5′-0"	
a131	25	#5	6′-3"	
h130	40	#5	10'-4"	
h131	8	#5	2'-9"	
h132	18	#5	5′-1"	
h133	8	#5	3′-0"	
v130	42	#5	6′-6"	
v131	42	#5	2'-4"	
	Excavatio		Cu. Yd.	56
Concrete	Structures	ì	Cu. Yd.	6.2
Reinforce	ement Bars		Pound	1,170



BAR a131



BAR h131

## DESIGN STRESSES

fy = 60,000 psi f'c = 3,500 psi

ILE	NAME	=	
01601	462-SH	IT-JC3-02.dgn	

NAME =	USER NAME = Anthony_Plutz	DESIGNED - PMH	REVISED -
162-SHT-JC3-02.dgn		CHECKED - MJL	REVISED -
	PLOT SCALE = 5:10 ':' / in.	DRAWN - AMV	REVISED -
	PLOT DATE = 3/12/2013	CHECKED - PMH	REVISED -

	CHAMBER NO. 3				
DETAILS					
SHEET NO.	. 2 OF 2 SHEETS				

F.A.P RTE.	SECTION		COUNTY	TOTAL SHEETS	SHE
330	103R-5		COOK	778	22
			CONTRACT	NO. 6	ОМЕ
	ILLINOIS	FED. AI	D PROJECT		